ULT90

Ultra Low Freezer
Validation System

PRODUCT USER GUIDE

To view the full MadgeTech product line, visit our website at **madgetech.com**.

TABLE OF CONTENTS

2 Product Overview

2 Installation Guide

2 Device Operation

3 Device Maintenance

4 Need Help?

CE MADE IN THE USA

PST PACIFIC SENSOR TECHNOLOGIES
MEASURING THE WORLD AND BEYOND

MADGETECH
WE BUILD DATA LOGGERS

PRODUCT USER GUIDE

Product Overview

The ULT90 is an ultra low temperature monitoring system. The system includes the MadgeTech Secure Software which aids in compliance with Federal Register 21 CFR Part 11, IQ/OQ/PQ documentation for the software and CryoTemp data logger(s). The ULT90-9 comes with nine CryoTemps for monitoring up to nine locations and the ULT90-15 includes fifteen CryoTemps to monitor up to fifteen different locations.

The CryoTemps can be used to verify and profile freezers, refrigerators and other environments in the temperature range of -86 °C up to +35 °C (-122 °F to +95 °F).

Water Resistance

The CryoTemp is splash resistant, rated IP64.

Installation Guide

Installing the Software

The Software can be installed from the CD that is included. Follow the instructions provided in the Installation Wizard.

Installing the Docking Station

IFC300 (sold separately) — Follow the instructions provided in the Installation Wizard to install the USB Interface Drivers. Drivers can also be downloaded from the MadgeTech website at **madgetech.com**.

Ordering Information

- 901807-00 — ULT90-9
- 901805-00 — ULT90-15
- 900315-00 — IFC300 Docking Station

Device Operation

Connecting and Starting the Data Logger

1. Once the software is installed and running, plug the interface cable into the data logger.
2. Connect the USB end of the interface cable into an open USB port on the computer.
3. The data logger will automatically appear under **Connected Devices** within the software.
4. For most applications, select **Custom Start** from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click **Start**. *(**Quick Start** applies the most recent custom start options, **Batch Start** is used for managing multiple loggers at once, **Real Time Start** stores the dataset as it records while connected to the logger.)*
5. The status of the device will change to **Running**, **Waiting to Start** or **Waiting to Manual Start**, depending upon your start method.
6. Disconnect the data logger from the interface cable and place it in the environment to measure.

Note: *The device will stop recording data when the end of memory is reached or the device is stopped, unless user selectable memory wrap is enabled. At this point the device cannot be restarted until it has been re-armed by the computer.*

Downloading Data from a Data Logger

1. Connect the data logger to the computer with the interface cable.
2. Highlight the data logger in the **Connected Devices** list. Click **Stop** on the menu bar.
3. Once the data logger is stopped, with the logger highlighted, click **Download**.
4. Downloading will offload and save all the recorded data to the PC.

PRODUCT USER GUIDE

Device Operation (cont'd)

Manual Start

The CryoTemp loggers can be started using the magnetic wand provided (in the IFC300) by touching the start/mark switch if it is first programmed for a Manual Start in the MadgeTech 4 Software. Once the device is programmed the status will change to Waiting for Manual Start. To begin recording, touch the wand to the start/mark switch, the green LED (OK) will blink 5 times followed by the yellow LED (WARN) and the red LED (ALARM), indicating the device is recording. The logger must be manually stopped through the MadgeTech 4 Software.

Marking Feature

A date and time stamp may be placed in the recorded data, by touching the magnetic wand to the start/mark switch. The marking feature may be configured to clear the alarm and warn indicators, while the logger is still active.

Set Password

To password protect the device so that others cannot start, stop or reset the device:

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device** Tab, in the **Information** Group, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. On the **General** Tab, click **Set Password**.
4. Enter and confirm the password in the box that appears, then select **OK**.

Alarm Settings

To change the settings for the alarm:

1. In the **Connected Devices** panel, select the intended device to change the alarm settings.
2. On the **Device** tab, in the **Information** group, click **Properties**. Users can also right-click on the device and select **Properties** in the context menu.
3. A window will appear allowing to set the high and low alarms and warning alarms.
4. Press **Change** to edit the values.
5. Check **Enable Alarm Settings** to enable the feature and check each high and low, warn and alarm box to activate it. The values can be entered in the field manually or by using the scroll bars.
6. Click **Apply** to save the changes to the device. To clear an active alarm or warn, press the **Clear Alarm** or **Clear Warn** button.
7. To set an alarm delay, enter the duration of time into the **Alarm Delay** box in which the readings can be outside of the alarm parameters.

LED Indicators

	Green LED blinks to indicate safe conditions during logging
	Yellow LED blinks to indicate warn limits have been exceeded
	Red LED blinks to indicate alarm criteria (limits/delay) have been exceeded

Device Maintenance

Battery Replacement and Calibration

When battery life is expended or device calibration is required, the CryoTemp data logger must be returned to MadgeTech to participate in the product exchange program. Please call a MadgeTech sales representative for details.

NEED HELP?

Product Support & Troubleshooting

- Visit our Resource Library online at **madgetech.com/resources**.
- Contact our friendly Customer Support Team at (603) 456-2011 or **support@madgetech.com**.

MadgeTech 4 Software Support

- Refer to the built-in help section of the MadgeTech 4 Software.
- Download the MadgeTech 4 Software Manual at **madgetech.com**.
- Contact our friendly Customer Support Team at (603) 456-2011 or **support@madgetech.com**.

PST
PACIFIC SENSOR TECHNOLOGIES
MEASURING THE WORLD AND BEYOND

Authorized Distributor in Australia
Pacific Sensor Technologies Pty Ltd
Unit 7, 14 Commercial Dr, Pakenham VIC 3810 Australia
1300 662 720 | sales@pacificsensortech.com.au
www.pacificsensortech.com.au

MADGETECH
WE BUILD DATA LOGGERS

6 Warner Road, Warner, NH 03278
(603) 456-2011
info@madgetech.com
madgetech.com

DOC-1198036-00 | REV 1 2021.03.23